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AVG-3512

Introduction

AVG 3512 is a Wi-Fi VoIP Gateway, which combined 2-port FXS, 1-port PSTN, 1 WAN / 4 LAN IP Gateway, and 802.11 b/g WLAN together. It support SIPv2 (RFC3261) protocol and with abundant telephony features. The PSTN interface support power failure to switch to PSTN call automatically and specific dial to PSTN call manually. Wireless LAN with both Access Point and Client mode, with automatically site scan and access control by MAC address. Support WDS and Universal Repeater to connect different wireless network together. The Wireless ISP feature support to connect to ISP's wireless network directly.



Features

- All-in-One design, to save the equipment purchasing cost.
- Build-in Wi-Fi AP, Wi-Fi Client, IP Gateway, and VoIP, dedicated for Enterprise, SOHO, Home user.
- Support both WDS and Universal Repeater, easy to connect the different wireless network together.
- Security protect by Firewall and Denial of Service.
- Voice packet (FXS) with higher priority than LAN ports.
- Wireless ISP, easy set to connect to various ISP' swireless network.
- Support diverse networking connection of ADSL Modem, Cable Modem, and Leased line.
- Multiple VPN protocol pass-through, to integrate with existed VPN network.
- Flexible Dial Plan for VoIP, PSTN, and Wireless call.

Specification

IP Network connection Broadband Router (IP Gateway)

IPv4 (RFC 791)
 MAC Address (IEEE 802.3)
 TCP/UDP (RFC 793/768)
 RTP/RTCP (RFC 1889/1890)
 ICMP (RFC 792)
 ARP (RFC 826)
 Static IP (WAN)
 DHCP Client (RFC 2131)



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DHCP Server (RFC 2131)

PPPoE Client (RFC 2516)

DNS Client DNS Relay

Dynamic DNS

NAT/NAPT (RFC 1631)

Virtual DMZ

Firewall:

- IP Filtering
- Port Filtering
- MAC Filtering
- URL Filtering
- Port Forwarding
- DoS: Denial of Service

Bridge Mode

VPN Pass-Through: IPSec, PPTP, L2TP

NAT Traversal:

- UPnP IGD
- STUN Client

SNTP Client (RFC 2030)

HTTP Server

Quality of Service

- 802.1Q VLAN Tag

DiffServ (RFC 2475)

Wireless LAN

Standard: IEEE 802.11 b/g compliant

Band: 2.4GHz (B) / 2.4GHz (G) / 2.4GHz (B+G)

Mode:

- Wi-Fi AP Mode,
- Wi-Fi Client Mode,
- WDS Repeater Mode,
- Wi-Fi AP+WDS Repeater Mode
- Universal Repeater Mode

SSID / Broadcast SSID

Channel: Ch 1 ~ 11, 13 for Europe (ETSI), 14 for Japan

Authentication Type: Open System / Shared Key

Data Rate: 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, 54M

Wireless ISP: Bridged WAN and LAN together, Wi-Fi Client connect to ISP's AP.

802.1x Encryption and Authentication

- Encryption: WEP (64/128bits), WPA/WPA2-TKIP/AES, Mixed WPA and WPA2
- WPA Authentication: PSK: Pre-Shared Key (Personal) / Radius (Enterprise)



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Wireless Access Control by MAC address (Allow/Deny)

802.11f, IAPP (Inter Access Point Protocol)

Support Network Type: Infrastructure and Ad-Hoc mode

Support Site survey scan and Manual connect Up-to 8 WDS AP List

IP Telephony (VoIP)

SIPv2 (RFC 3261):

- Outbound proxy setting for increasing performance, productivity, and security

Voice Codecs:

- G.711 (a-Law/u-Law): 64 bits (PCM)
- G.723.1: 6.3k/5.3k bits
- G.726: G.726: 16/24/32/40K bits (ADPCM)
- G.729A: 8k bits (CS-SCELP)
- G.729B: adds VAD and CNG to G.729

VAD – Voice Activity Detection with Silence Suppression

CNG – Comfortable Noise Generation

Voice Gain Adjustable

Automatic Gain Control

Line Echo Cancelation

Adaptive Jitter Buffer

Packet Loss compensation - increasing voice quality

DTMF: In-band, Out-of-band (RFC 2833), and SIP Info

Caller ID:

- Caller ID Generation DTMF, FSK (Bellcore, ETSI, BT, NTT)
- Call Waiting Caller ID
- Short Ring / Dual Tone before Caller ID

FAX transmission:

- Tone Detection
- G.711 pass-through

T.38 Fax relay protocol

Modem transmission:

- Tone Detection
- G.711 pass-through

Tone Generation (upto 13 countries localized tone selectable)

- Ringing Tone
- Ring Back Tone
- Dial Tone
- Programming Tone
- Customized Ring Cadence



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- Call Hold
- Call Transfer (Blind)
- Call Forward (Unconditional/No Answer/Busy)
- Call Conference (3-ways)
- DND (Do Not Disturb)

Dial Plan

- Proxy routing call
- Direct IP call
- PSTN call
- Speed Dial
- HotLine
- Prefix Insert/Drop

Security

802.1x Wireless Encryption and Authentication Build-in
 Firewall / Denial of Service MD5 for SIP authentication
 (RFC 2069 / 2617) Password protected Admin access authority

Setting and Maintenance

- Configure & Update method: Web Browser (HTTP)
- Access password setting and change
- IVR announcement of IP address
- System Status indication
- System Statistic
- Save / Reload Setting parameter
- System Log Saving locally and remotely
- Date & Time setting

Environmental

- Dimension(W*H*D): 175*32*126 mm
- Weight: 250g (Unit) Operating Temp. & Humidity
- Temp.: 0°C~45°C (32°F~113°F)
- Humidity: 10%~85% relative humidity, non-condensing
- Storage Temp. & Humidity
- Temp.: 0°C~55°C (32°F ~131°F)
- Humidity: 10%~95% relative humidity, non-condensing
- AC Power Adaptor:
- INPUT: AC100V~240V, 50-60Hz
- OUTPUT: DC 12V, 1.5A
- Regulatory: FCC (Part 15, Class B) & CE Processing



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Application

